



Rocky Flats Environmental Technology Site
P.O. Box 464
Golden, Colorado 80402
Phone: (303) 966-7000
Fax: (303) 966-8244

Reviewed for Classification/UCNI
By: Janet Nesheim, Derivative Classifier
DOE, EMCBC/71
Date: 10-27-08
Confirmed Unclassified, Not UCNI

CORRES. CONTROL
LTR. No.

January 14, 1998

98-RF-00236

K-H Corres. #

Originator Ltr Log #

JWP-002-98

98-RF-00236

DIST.	LTR	ENC
BENSON, C. A.		
CARMAN, C. H.		
CRAWFORD, A. C.		
DAWSON, D.		
EDWARDS, J. D.		
FINDLEY, M. E.		
FITZ, R. C.		
GUNN, L. A.		
HUGHES, F. P.		
LAW, J. E.		
OVERUD, T. W.		
PATTERSON, J. W.	X	
SUTTON, S. R.		
WHEELER, M.		

CAULFIELD, R. A.		
GRAY, T. D.		
GUTHRIE, C. L.	X	
MCANDREW, W. J.		

Chattanooga, P X

Corres. Cathy X
Admin Rec. X
RMRS RECORDS X X

CONTROL	
TRAFFIC	
PATS/T130G	

CLASSIFICATION:

UCNI	
UNCLASSIFIED	X
CONFIDENTIAL	
SECRET	

AUTHORIZED CLASSIFIER

SIGNATURE:

IN REPLY TO RF CC NO.:

ACTION ITEM STATUS:

- ☐ PARTIAL/OPEN
☐ CLOSED

ORIG. & TYPIST INITIALS:

D. W. Ferrera, Deputy Director
Kaiser-Hill Company L. L. C.
Site Operations and Integration
Building 115
Rocky Flats Environmental Technology Site

REQUEST FOR APPROVAL FOR OFF-SITE SHIPMENTS — JWP-002-98

PURPOSE

The purpose of this letter is to request Kaiser-Hill Company, L. L. C.'s (K-H) approval for the following off-site shipments:

1. Product Number 1 and 2 Diesel fuel; and
2. A mixture of waste water, surfactant, and diesel fuel.

BACKGROUND

On January 14, 1998 Rocky Mountain Remediation Services, L. L. C. (RMRS) received a copy of a letter from DynCorp of Colorado, Inc. (DCI) Traffic Management to Shippers of the Department of Energy Owned Property. This letter stated, "Due to the suspension of shipment of materials from the Rocky Flats Environmental Technology Site as stated in R. G. Card's letter to Jessie M. Roberson, Traffic Management is addressing each shipment separately. In Mr. Card's letter a list of exceptions to this suspension were identified: "shipments of waste, special nuclear material, and operational services such as laundry and respirators, all of which are adequately characterized, will continue."

DCI identified a path that may be taken to get approval for your shipment:

1. Contact your K-H Integrator;
2. Explain the need for the shipment;
3. Provide a complete inventory; and
4. Characterize the material.

M. D. Brailsford, D. W. Ferrera, and J. D. Thompson were identified as individuals that could approve shipments.

EXPLANATION AS TO THE NEED TO APPROVE THE SHIPMENT OF THESE MATERIALS

In keeping with these guidelines, RMRS is requesting written approval of shipment of diesel product and waste rinsate (water/surfactant/diesel) from the Underground Storage Tank (UST) program to facilities managed by Thermo Fluids Inc. The removal and disposal of these materials has been planned for several months. Approval of off-site vendors by K-H Environmental Compliance is required before any materials/wastes can be managed by an off-site vendor. An audit team headed by Karan North, K-H Environmental Compliance, inspected the following Thermo Fluids Inc. (TFI) facilities:

- The diesel is scheduled to be used directly as a fuel blending product at Thermo Fluids, Inc., 4845 Forest Street, Denver, Colorado;
- The waste rinsate solution is scheduled to be sent to a waste water treatment facility also operated by Thermo Fluids Inc. at 4301 West Jefferson Street, Phoenix, Arizona.

Both facilities were conditionally approved and a copy of this approval is attached. In anticipation of approval, arrangements were made with TFI to start pumping diesel and rinsate on

ADMIN RECORD A-SW-002615

D. W. Ferrera
January 14, 1998
JWP-002-98
Page 2 of 2

January 14, 1998. A tanker truck arrived mid-morning and is now presently on-site awaiting approval to leave the site.

CHARACTERIZATION

The mixture of number 1 and number 2 diesel (30% #1 and 70% #2) will be sent off-site as product. It will be used directly by the Denver TFI facility as product (fuel for asphalt plants). This material is not a waste. A copy of a Material Safety Data Sheet (MSDS) for #2 Diesel is attached as is a Non-Routine Waste Origination Log (NRWOL) for this material.

The rinsate mixture consists of surfactant (soaps), water, and whatever residue diesel remains in the tanks when they are washed out. This material is a waste and is scheduled to be sent to the Phoenix TFI facility. This facility has a waste water treatment unit WWTU that will separate out the diesel and discharge to the City of Phoenix sewer system. This WWTU is permitted under Section 307(b) of the Clean Water Act by the City of Phoenix. In accordance with 40 CFR 262.11, a Process Knowledge hazardous waste determination has been completed by Ted Hopkins of RMRS Environmental Compliance for this material. This waste rinsate is a non-hazardous Resource Conservation and Recovery Act (RCRA) solid waste. The Phoenix TFI facility can accept this material for treatment. A copy of this waste streams NRWOL and a Property Release Evaluation has been completed for this material and are attached.

INVENTORY

The UST Program anticipates that removal of the diesel and rinsate will take approximately two weeks. Roughly 56,000 gallons of #1 and #2 diesel will be shipped off-site and an additional 4,200 gallons of rinsate (surfactant/water/diesel) mixture will be generated. Each shipment of these materials will be accompanied by individual shipping papers with the exact volume of each shipment. These shipping papers, for both the diesel product and waste rinsate, will serve to complete the inventory requirements specified in the DCI letter.

RESPONSE REQUIREMENTS

None required. If you have any questions in regard to this document, please contact me at extension 7678 or Ted Hopkins at extension 7652.

James W. Patterson by Ted A. Hopkins

James W. Patterson, Director
Engineering/Construction/Decommissioning/Facilities

KAISER-HILL APPROVAL OF SHIPMENTS

In accordance with the requirements specified in the January 14, 1998 DCI letter, the information contained or attached to this letter is sufficient to allow for the shipment of these materials off-site to the designated facility. I, therefore, approve the shipments of these materials.

APPROVED:

DW Ferrera 1/14/98
D.W. Ferrera Date
Deputy Director, K-H
TAH:alk
Attachments:
As Stated (5)

cc:
K. A. Dorr
K. North



x9 212-3662



WEIGHT TICKET

EMPTY WEIGHT=

09:58 AM

01-14-97

22120 1b GR
22120 1b GR

FULL WEIGHT=

26,920 NET

01-14-97

49040 1b GR
49040 1b GR

COMPANY NAME: ~~XXXXXXXXXX~~

WEIGHED BY:

Page deleted due to Confidential Information

Page deleted due to Confidential Information

DYNACORP OF COLORADO, INC.

12046

SHIPPING MEMO

USE THIS FORM TO AUTHORIZE OFFSITE SHIPMENT.
AUDITABLE FORM - MUST BE TYPED.

FROM: RNRS
NAME OF CONTRACTOR

FOR: U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
State Highway 93 and Cactus Avenue
ROCKY FLATS, CO 80007

TO: Thermo Fluids, Inc.
4845 Forest St.
Denver, CO 80216

ATTN: Frank Edward Sooles

FOR:

ORDER #:

Material Classification Diesel Fuel and Rinse

Ship Via * Truck

Order or Charge No. ASH/0410/0483/NC1PM1

B/L No. T.B.D.

Date Shipped various Partial Final

Freight Code Prepaid Collect

W/C

CONTAINER DATA

CONTENTS

Number	Type	Size	Gross Wt.	Quantity	Description
4	Diesel		266,000lb	40,000gal.	Diesel No. 1/No. 2 30%/70%/Haz. Class 3 ^{HAZ} 13
14	Diesel		6,600lb	1,000gal.	"
15	Diesel		13,200lb	2,000gal.	"
16	Diesel		26,640lb	4,000gal.	"
21	Diesel		26,640lb	4,000gal.	"
23	Diesel		26,640lb	4,000gal.	"
711	Diesel		3,300lb	500gal.	"
4	Diesel Rinse		13,200lb	2,000gal.	Rinse containing diesel and non-hazardous soap products
14	Diesel Rinse		2,000lb	300gal.	"
15	Diesel Rinse		2,000lb	300gal.	"
16	Diesel Rinse		4,000lb	600gal.	"
21	Diesel Rinse		3,500lb	500gal.	"
23	Diesel Rinse		3,500lb	500gal.	"
711	Diesel Rinse				

TOTAL CONTAINERS (9) Truck Loads

TOTAL WEIGHT

This form must be accompanied by Proof of Radiological Release in accordance with current health and safety practices.

* Premium transportation including Federal Express shall include a copy of a letter of authorization.

Requested By P. Chatterji Telephone No. 966-4521

Packed By Bldg.

Authorized By Date

Received By Date

DYNCORP OF COLORADO, INC.

12046

SHIPPING MEMO

USE THIS FORM TO AUTHORIZE OFFSITE SHIPMENT.
AUDITABLE FORM - MUST BE TYPED.

FROM: RGRS
NAME OF CONTRACTOR

FOR: U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
State Highway 93 and Cactus Avenue
ROCKY FLATS, CO 80007

TO: Thermo Fluids, Inc.
4845 Forest St.
Denver, CO 80216

ATTN: Frank Edward Sooles

FOR:

ORDER #:

Material Classification Diesel Fuel and Rinse

Ship Via * Truck

Order or Charge No. ASH/0410/0483/NCIPW1

B/L No. T.B.D.

Date Shipped various Partial Final

Freight Code Prepaid Collect

M/C

CONTAINER DATA

CONTENTS

Number	Type	Size	Gross Wt.	Quantity	Description
4	Diesel		266,000lbs	40,000gal.	Diesel No. 1/No. 2 30%/70%/Max. Class 3 ^{HAZ} 195
14	Diesel		6,600lbs	1,000gal.	"
15	Diesel		13,200lbs	2,000gal.	"
16	Diesel		26,400lbs	4,000gal.	"
21	Diesel		26,400lbs	4,000gal.	"
23	Diesel		26,400lbs	4,000gal.	"
711	Diesel		3,300lbs	500gal.	"
4	Diesel Rinse		13,200lbs	2,000gal.	Rinse containing diesel and non-hazardous soap products
14	Diesel Rinse		2,000lbs	300gal.	"
15	Diesel Rinse		2,000lbs	300gal.	"
16	Diesel Rinse		4,000lbs	600gal.	"
21	Diesel Rinse		3,500lbs	500gal.	"
23	Diesel Rinse		3,500lbs	500gal.	"
711	Diesel Rinse				
				TOTAL CONTAINERS <u>(9) Truck Loads</u>	
				TOTAL WEIGHT _____	

This form must be accompanied by Proof of Radiological Release in accordance with current health and safety practices.

* Premium transportation including Federal Express shall include a copy of a letter of authorization.

Requested By F. Chatterji Telephone No. 366-4521

Packed By _____ Bldg. _____

Authorized By _____ Date _____

Received By _____ Date _____

WORK PERFORMED BY:

RMRS

NON-ROUTINE WASTE
ORIGINATION LOG

WORK CONTROL # 349303

BUILDING 371 ROOM N/A

WORK PACKAGE TITLE: UNDERGROUND STORAGE TANK REPLACEMENT, TANK 4, BUILDING 371 PAGE 1 OF 1

OUT PUT #	DESCRIPTION	IDC/WFC	*Process #	RCRA Hazardous Waste (Y/N)	RCRA OCC	NON-RCRA OCC	COMP CODE	EPA Code(s)	LDR Code(s)	WASTE DESTINATION	RCRA CUSTODIAN EXT/PAGER	Waste Contact Signature Date
1	Diesel Fuel	1529	349303-01	N x H	00 AT	47 200	4A	NA 2001	Y	RECYCLE	NA	G. PANKONIN

CHARACTERIZATION RATIONALE/COMMENTS: This is generated during the draining process for the existing fuel oil tank. This material is #2 Diesel fuel.

Characterization per MSDS shows this product to be ignitable (130°F), and will therefore carry the EPA code D001 (Tank 4, Bldg 371).

Waste is to be shipped to:

Eltey/Chemical Environmental Services SEE A-7 FOR REVISION

747 Sheridan Blvd. Suite # 4A

Lakewood, CO 80214

Contact Person: Jeff Dyke 238-8710 LC 1/13/97

PRE # 961205-T690B-002

2	Rinse from Diesel Tank	1530 1529	349303-02	N	00	47	NA 2001	NA	NA	BIODEGRADE	NA	G. Pankonin
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CHARACTERIZATION RATIONALE/COMMENTS: This is generated during the cleaning of the existing diesel fuel tank, which has been drained and rinsed for closure: it is not contaminated and is non-radioactive. Waste is going to Resource Environmental Group which will be shipped to:

Conservative Services, Inc.
2090 E 104TH AVE.
Denver, CO 80233
Phone: (303) 280-9336

PRE # 961205-T690B-001

* No Non-Routine Waste Origination Log is required if the waste is identified with a Process Number in the applicable Building WSRIC Book.

EC/EPM Review/Approval: *AB. Shuman* Employee Number: [REDACTED]

(Typed or Printed/Signature)

Date 11/26/96

Ext 5842

Page: 7724

ORIGINAL

WORK PERFORMED BY: _____
RMRS

NON-ROUTINE WASTE
ORIGINATION LOG

WORK CONTROL # 349303
BUILDING 776 ROOM N/A

WORK PACKAGE TITLE: UNDERGROUND STORAGE TANK REPLACEMENT, TANK 23, BUILDING 776

PAGE 1 OF 1

OUT PUT #	DESCRIPTION	IDC/WFC	*Process #	RCRA Hazardous Waste (Y/N)	RCRA OCC	NON-RCRA OCC	COMP CODE	EPA Code(s)	LDR Code(s)	WASTE DESTINATION	RCRA CUSTODIAN EXT/PAGER	Waste Contact Signature Date
1	Diesel Fuel	1529	349303-01	N	00	47	4A	NA	NA	RECYCLE	NA	G. PANKONTIN
<p>CHARACTERIZATION RATIONALE/COMMENTS: This is generated during the draining process for the existing fuel oil tank. This material is #2 Diesel fuel product. Characterization per MSDS shows this product to be ignitable (130°F), and will therefore carry the EPA code D001 (Tank 23, Bldg. 776). Waste is to be shipped to:</p> <p>PRE # 961205-T6903-002</p> <p>Approved Oil Service, Inc. 5390 E. 72nd Ave. Commerce City, CO 80022 Contact Person: Ed Soto 287-2808</p> <p>Thermal Fluids Inc. - Joel Hadden 4845 Forest St. Commerce City, Colorado 80022 11/14/98</p> <p>Contact: Ed Soto</p>												
2	Rinsate from Diesel Tank	1529	349303-02	N	00	47	NA	NA	NA	BIODEGRADE	NA	G. Pankontin
<p>CHARACTERIZATION RATIONALE/COMMENTS: This is generated during the cleaning of the existing diesel fuel tank, which has been drained and rinsed for closure: it is not contaminated and is non-radioactive. Waste is going to Resource Environmental Group which will be shipped to:</p> <p>PRE # 961205-T6903-001</p> <p>Conservative Services, Inc. 2090 E. 104TH AVE. Denver, CO 80233 Phone: (303) 280-9336</p> <p>Thermal Fluids Inc. 4301 West Jefferson Street Phoenix, Arizona Contact: Bobbi Good</p>												

* No Non-Routine Waste Origination Log is required if the waste is identified with a Process Number in the applicable Building WSRIC Book.

EC/EPM Review/Approval: AB Garcia Employee Number: [REDACTED] (Typed or Printed/Signature)

Date 11/24/96 Ext 5842 Page: 7724

ORIGINAL

WORK PERFORMED BY:

RMRS

NON-ROUTINE WASTE
ORIGINATION LOG

WORK CONTROL # 349303

BUILDING 776

ROOM N/A

WORK PACKAGE TITLE: UNDERGROUND STORAGE TANK REPLACEMENT TANK 23, BUILDING 776

PAGE 1 OF 1

OUT PUT #	DESCRIPTION	IDC/ WFC	*Process #	RCRA Hazardous Waste (Y/N)	RCRA OCC	NON-RCRA OCC	COMP CODE	EPA Code(s)	LDR Code(s)	WASTE DESTINATION	RCRA CUSTODIAN EXTRAGER	Waste Contact Signature Date
1	Diesel Fuel	1529	349303-01	AN	47	00	4A	NA	NO	RECYCLE	NA	G. PANKONIN

CHARACTERIZATION RATIONALE/COMMENTS: This is generated during the draining process for the existing fuel oil tank. This material is #2 Diesel fuel product. Characterization per MSDS shows this product to be ignitable (130°F), and will therefore carry the EPA code D001 (Tank 23, Bldg. 776)

Waste is to be shipped to:

Product 961205-T690B-002

Approved Oil Service Inc.

5390 E-72nd Ave.

Commerce City, CO 80022

Contact Person: Ed Sule 287-2808

Thermal Fluids Inc.

4845 Forest St.

Commerce City, CO 80022

Contact: Ed Sule

2	Rinse from Diesel Tank	1529	349303-02	N	00	47	NA	NA	NA	BIODEGRADE	NA	G. Pankonin
---	------------------------	------	-----------	---	----	----	----	----	----	------------	----	-------------

CHARACTERIZATION RATIONALE/COMMENTS: This is generated during the cleaning of the existing diesel fuel tank, which has been drained and rinsed for closure: it is not contaminated and is non-radioactive. Waste is going to Resource Environmental Group which will be shipped to:

961205-T690B-001

Conservative Services, Inc.

2090 E-104TH AVE.

Denver, CO 80233

Phone: (303)-280-9336

Thermal Fluids Inc.

4301 West Jefferson

Phoenix, AZ

Contact: Bobbi Good

* No Non-Routine Waste Origination Log is required if the waste is identified with a Process Number in the applicable Building WSRIC Book.

EC/EPM Review/Approval: [Signature]Employee Number: [Redacted]

(Typed or Printed/Signature)

Date 12/4/96

Ext 5842

Page: 7724

RF-47637 (6/95)

ORIGINAL

ORIGIN

WORK PERFORMED BY:

RMR

NON-ROUTINE WASTE
ORIGINATION LOG

WORK CONTROL # 349303-2

BUILDING 559,562,708 ROOM NA

WORK PACKAGE TITLE: UNDERGROUND STORAGE TANK REPLACEMENT PROJECT Tanks 14, 15 +/6 PAGE 1 OF 1

OUT PUT #	DESCRIPTION	IDC/ WFC	*Process #	RCRA Hazardous Waste (Y/N)	RCRA OCC	NON-RCRA OCC	COMP CODE	EPA Code(s)	LDR Code(s)	WASTE DESTINATION	RCRA CUSTODIAN EXTRAGER	Waste Contact Signature Date
1	Diesel Fuel	1529	349303-2-01	N	00	47	4A	NA	Y	Recycle	NA	6. PANKOVIN

CHARACTERIZATION RATIONALE/COMMENTS

Fuel oil tanks. This is #2 Diesel fuel and has a flashpoint of 430°F. per the existing going to be recycled. It is not a hazardous waste. It is not recycled or fuel blended, it will be RCRA for the characterizations of ignitability and carry EPA code D001.

PRE # 961205-T690B-002 Send to: Approved Oil Service Inc. 5390 E. 72nd Ave. Commerce City, Co. 80022 contact Ed Sole 287-281

2 Rinse tank

1529 349303-2-02

CHARACTERIZATION RATIONALE/COMMENTS

This Rinse tank is generated during the cleaning of the existing fuel tanks, which has been drained and rinsed for closure. It is not contaminated and is non-radioactive. The Rinse tank will be shipped to: Conservative Services Inc, 2090 E 104th Ave, Denver, CO. 80231 Phone 303-280-9336

PRE # 961205-T690B-001

3 Dirt + Concrete

1374 349303-2-03

CHARACTERIZATION RATIONALE/COMMENTS

This output consists of dirt and concrete debris generated during the removal of these tanks. The waste is not Hazardous and is not radioactive.

* No Non-Routine Waste Origination Log is required if the waste is identified with a Process Number in the applicable Building WSRIC Book

EC/EPM Review/Approval:

Ray Butler

Employee Number: [REDACTED]

Date 5/1/97

Ext 6387

Page: 5933

RF-47637 (6/93)

MATERIAL SAFETY DATA SHEET

CORPORATE RESEARCH & DEVELOPMENT

SCHENECTADY, N. Y. 12305

m
IS
SERVICES
INFORMATION

No. 469

FUEL OIL NO. 2

Date October 1981

SECTION I. MATERIAL IDENTIFICATION

MATERIAL NAME: FUEL OIL NO. 2

DESCRIPTION: Mixture of petroleum hydrocarbons; a distillate oil of low sulfur content.

OTHER DESIGNATIONS: ASTM D396, GE Material D27B1A, CAS #068-476 302

MANUFACTURER: Available from many suppliers, including:

AMOCO Oil Co.
200 East Randolph Drive
Chicago, Illinois 60601

SECTION II. INGREDIENTS AND HAZARDS

Fuel Oil No. 2

Complex mixture of paraffinic, olefinic, naphthenic,
and aromatic hydrocarbons

Sulfur content

Benzene**

*Current OSHA standard and ACGIH (1981) TLV

**A low benzene level reduces carcinogenic risk. Fuel
oils are exempted under the benzene standard
(29 CFR 1910.1028)

x

HAZARD DATA

<0.5
<100 ppm

8-hr TWA 5 mg/m³
(mineral oil mist)*

SECTION III. PHYSICAL DATA

Boiling point range, deg F, ——— Ca 340-675 Specific gravity (H₂O=1) — <0.876
Solubility in water ——— negligible Pour point, deg C ——— below -6
Viscosity at 38 C, cSt ——— 2.0-3.6

Appearance and Odor: Clear, bright liquid with a mild petroleum odor.

SECTION IV. FIRE AND EXPLOSION DATA

Flash Point and Method	Autoignition Temp.	Flammability Limits In Air	LOWER	UPPER
100F min (TCC)	257 C (495F)	% by volume	0.6	7.5

Extinguishing Media: Dry chemical, carbon dioxide, foam, water spray. Use a water spray to cool fire exposed containers. Use a smothering technique for extinguishing fire of this combustible liquid. Do not use a forced water stream directly on oil fire as this will only scatter the fire. Material is an OSHA Class II combustible liquid. Firefighters should wear self-contained breathing apparatus and full protective clothing.

SECTION V. REACTIVITY DATA

This is a stable material in closed containers at room temperature under normal storage and handling conditions. It does not undergo hazardous polymerization.

Incompatible with strong oxidizing agents; heating greatly increases fire hazard.

Thermal-oxidative degradation may yield various hydrocarbons and hydrocarbon derivatives (partial oxidation products), CO₂ and CO and SO₂.

FROM WESTON

ID: 300

TOTAL PETROLEUM, INC.

MATERIAL SAFETY DATA SHEET

Total No. 2 Diesel

SYNONYMS: No. 2 Distillate CHEMTREC 1-800-424-9300
X-Grade Diesel, No. 2 Fuel Oil

SECTION I - MANUFACTURER INFORMATION

ADDRESS:	EMERGENCY PHONE NUMBER:
E. Superior Street, Alma, Mi. 48802	(517) 463-1164
P.O. Box 857, Arkansas City, Ks. 67005	(316) 442-5100
P.O. Box 188 Ardmore, Ok. 73401	(405) 221-6222
Colorado Refining Company (a wholly-owned subsidiary)	
5500 Brighton Blvd, Commerce City, Co. 80022	(303) 295-4500
Date prepared or revised: January 22, 1992	
Prepared or revised by: M.N. Martin	

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Component	CAS No.	TLV ¹	PEL ¹	Other Limits	%
#####	#####	#####	#####	#####	#####
No. 2 Diesel Fuel	68476-34-6	NA	NA	100 mg/m ³	100

¹for kerosene by NIOSH

¹Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume (ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

NFPA 704M Rating

Health = 1 Flammability = 2 Reactivity = 0 Other = Blank

0 = insignificant 1 = slight 2 = moderate 3 = high 4 = extreme

NA = No applicable information was found

TOTAL PETROLEUM, INC.

MATERIAL SAFETY DATA SHEET

Total No. 2 Diesel

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point (°F): Initial 325; Final 700
Specific Gravity (H₂O = 1): <1
Vapor Pressure (mm Hg @ 100°F): <50
Melting Point: NA
Vapor Density (Air = 1): 5 to 11
Evaporation Rate (Ether = 1): <1
Solubility in water: Insoluble
Appearance and odor: Pale yellow liquid with characteristic odor of kerosene

=====

SECTION IV - FIRE AND EXPLOSION DATA

Flash Point (method used): 100°F to 180°F (pm)
Flammable Limits LEL: 0.7%
UEL: 5.0%

Extinguishing media: Dry chemical, foam or carbon dioxide, water spray or fog to cool surrounding containers.

Special Fire Fighting Procedures: Self contained breathing apparatus may be required.

Unusual Fire and Explosion Hazards: NA

=====

SECTION V - REACTIVITY DATA

Stability Unstable:
Stable: X

Conditions to Avoid: Heat and flames

Incompatibility (materials to avoid): Oxidizers

Hazardous Decomposition or Byproducts: Carbon monoxide and other petroleum decomposition products.

Hazardous Polymerization May Occur:
Will not Occur: X

Conditions to avoid: NA

NA = No applicable information was found

Page 3 of 4

MATERIAL SAFETY DATA SHEET

Total No. 2 Diesel

Route(s) of Entry:	Inhalation?	Yes
	Skin?	Yes
	Ingestion?	Yes

Acute: Central nervous system depression, peripheral nervous system depression, narcosis, asphyxiation, gastrointestinal disturbances, and eye and skin irritation.

Chronic: Dermatitis, pneumonitis, pulmonary edema, and kidney damage. When used as diesel fuel, NIOSH recommends that whole diesel exhaust be regarded as a potential occupational carcinogen; follow OSHA and MSHA rules where exhaust fumes may be generated.

Carcinogenicity: NTP: No IARC: No OSHA: No

Studies with rodents have shown that petroleum distillates have caused kidney damage and kidney or liver tumors. Mouse skin painting studies have shown that petroleum distillates which are similar to this product caused a low incident of skin tumors.

Signs and Symptoms of Exposure: Headache, drowsiness, eye, respiratory or skin irritation, nausea, numbness.

Medical Conditions generally Aggravated by Exposure: Impaired pulmonary function, especially those with obstructive airway diseases.

Emergency and First Aid Procedures: Remove from contaminated atmosphere. Remove contaminated clothing. Flush affected areas thoroughly with water. IF SWALLOWED, DO NOT INDUCE VOMITING. Seek medical attention immediately.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled: Eliminate all sources of ignition. Contain with earthen dike or petroleum absorbent material. Remove with grounded suction pump to salvage container. Remove all contaminated materials.

Waste Disposal Method: Per federal, state and local laws.

Precautions to be taken in Handling and Storage: Keep away from all ignition sources (e.g. heat, flame, sparks, strong oxidizers). Bond and ground container.

Other Precautions: N/A

NA = No applicable information was found

TOTAL PETROLEUM, INC.

MATERIAL SAFETY DATA SHEET

Total No. 2 Diesel

SECTION VIII - CONTROL MEASURES

Respiratory Protection (specify type): Organic vapor respirator approved by NIOSH.

Ventilation Local Exhaust: To control vapors
Special: Use explosion proof equipment
Mechanical: For confined spaces
Other: NA

Protective Gloves: PVC or equivalent resistant glove.

Eye Protection: Chemical goggles or face shield.

Other protective clothing or equipment: PVC or equivalent clothing if splashing is likely.

Work/Hygienic Practices: Keep body contact and splash to a minimum.

SECTION IX - ADDITIONAL INFORMATION

Shipping Name - Fuel Oil No. 2
Hazard Class - Combustible liquid
ID Number - UN 1993

SARA Hazard class:
Flammable: No
Acute: Yes
Chronic: Yes
Stored Pressure: No
Reactive: No

Section 313 listed components - None

The information accumulated herein is believed to be accurate, but is not warranted to be, whether originated with Total Petroleum or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

NA = No applicable information was found

PROPERTY RELEASE EVALUATION

PRE Number: 961205-T690B-001

Charge Number: NC2CM100

EXTENDED: NO

PART I

SENDER/CUSTODIAN

Description of Property/Waste To Be Released/Transferred:

Rinsate from RCRA rinsing of underground fuel storage tanks.

Property's Current Location:

Various USTs located across the plant site.

Property's Destination:

Conservation Services Inc., 2090 E 104th Ave, Denver, CO 80233

Property's New Recipient/Custodian:

CSI

Property History/Process Knowledge:

This liquid was used to rinse out the USTs previously containing fuel for RCRA closeout.

Has the specified property/waste ever been in an RMMA or contacted DOE controlled radioactive materials?

NO

ACKNOWLEDGEMENT:

By signing below, the sender/custodian verifies the information above to be true and correct.

Sender/Custodian: Lorenzo Cassey Emp.No. [REDACTED] Date: December 5, 1996 Ext: 4225 Pager: 7819

PART II

RADIOLOGICAL ENGINEERING

No Radiological Survey is required due to the property's location, history, and/or characteristics.

SPECIFIC REQUIREMENTS AND/OR COMMENTS:

APPROVAL FOR TRANSFER/SHIPMENT

The property may be released to the recipient indicated in Part I.

Approved: R. S. Tyson

RE

Emp.No.: [REDACTED]

Date: 12/5/96

Ext.: 8172

Pager: 7982

PROPERTY RELEASE EVALUATION

PRE Number: 961205-T690B-002

Charge Number: NC2CM100

EXTENDED: NO

PART I

SENDER/CUSTODIAN

Description of Property/Waste To Be Released/Transferred:

Diesel and unleaded fuel from emptying of underground fuel storage tanks.

Property's Current Location:

Various USTs located across the plant site.

Property's Destination:

Approved Oil Service Inc, 5390 E 72nd Ave, Commerce City, CO 80022
OR
Eltex Chemical Environmental Services, 747 Sheridan Blvd, Ste 4A,
Lakewood, CO 80214

Property's New Recipient/Custodian:

AOS or Eltex

Property History/Process Knowledge:

This fuel was stored in the USTs and is being emptied for RCRA closeout.

Has the specified property/waste ever been in an RMMA or contacted DOE controlled radioactive materials?

NO

ACKNOWLEDGEMENT:

By signing below, the sender/custodian verifies the information above to be true and correct.

Sender/Custodian: Lorenzo Casey Emp No. [REDACTED] Date: December 5, 1996 Ext: 4225 Pager: 7819

PART II

RADIOLOGICAL ENGINEERING

No Radiological Survey is required due to the property's location, history, and/or characteristics.

SPECIFIC REQUIREMENTS AND/OR COMMENTS:

APPROVAL FOR TRANSFER/SHIPMENT

The property may be released to the recipient indicated in Part I.

Approved: R. S. Tyson

RE

Emp No.: [REDACTED]

Date: December 5, 1996

Ext.: 8172

Pager: 7982

PROPERTY RELEASE EVALUATION

PRE Number: 961205-T690B-002

Charge Number: NC2CM100

EXTENDED: NO

ART I

SENDER/CUSTODIAN

Description of Property/Waste To Be Released/Transferred:

Diesel and unleaded fuel from emptying of underground fuel storage tanks.

Property's Current Location:

Various USTs located across the plant site.

Property's Destination:

Approved Oil Service Inc, 5390 E 72nd Ave, Commerce City, CO 80022
OR
Eltex Chemical Environmental Services, 747 Sheridan Blvd, Ste 4A,
Lakewood, CO 80214

Property's New Recipient/Custodian:

AOS or Eltex

Property History/Process Knowledge:

This fuel was stored in the USTs and is being emptied for RCRA closeout.

Has the specified property/waste ever been in an RMMA or contacted DOE controlled radioactive materials?

NO

ACKNOWLEDGEMENT:

By signing below, the sender/custodian verifies the information above to be true and correct.

Sender/Custodian: Lorenzo Casey

Emp No. [REDACTED]

Date: December 5, 1996

Ext: 4225

Pager: 7819

PART II

RADIOLOGICAL ENGINEERING

No Radiological Survey is required due to the property's location, history, and/or characteristics.

SPECIFIC REQUIREMENTS AND/OR COMMENTS:

APPROVAL FOR TRANSFER/SHIPMENT

The property may be released to the recipient indicated in Part I.

Approved: R. S. Tyson

RE

Emp.No. [REDACTED]

Date: December 5, 1996

Ext.: 8172

Pager: 7982

1/14/97

UNDERGROUND STORAGE TANK REPLACEMENT PROJECT

All Diesel and Unleaded fuels will be removed and transported off site from all of the abandoned fuel storage tanks associated with the 349303 Work Control Number by :

~~Approved Oil Services Inc.
5390 E. 72 nd Ave.
Commerce City, Co. 80022
Contact Person Ed Sole 287-2808~~

Thermal Fluids Inc
4845 Forest St.
Denver, Co 80216

Jed Hopkins
1/14/98

No fuel will be removed or transported off site by Eltex Chemical Environmental Services as indicated on any NRWOL associated with the UST Replacement Project Work Control No. 349303

Rinstate will go to:

Thermal Fluids Inc
4301 W. Jefferson St.
Phoenix, AZ

Jed Hopkins
1/14/98



DynCorp of Colorado, Inc.

Interoffice Memorandum

DATE: January 14, 1998
TO: Shippers of DOE Owned Property
FROM: DCI, Traffic Management, Bldg. 441
SUBJECT: SUSPENSION OF SHIPMENT OF MATERIALS FROM THE ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

Due to the suspension of shipment of materials from the Rocky Flats Environmental Technology Site as stated in R.G. Card's letter to Jessie M. Roberson, RGC-009-98, Traffic Management is addressing each shipment separately.

Here is a path that may be taken to get approval for your shipment. Contact your Kaiser-Hill Integrator. Explain to them the need for the shipment and give them a complete inventory along with proper characterization. Have them take this information to one of the following for approval:

M. D. Brailsford, Kaiser-Hill, X3221
D. W. Ferrera, Kaiser-Hill, X5008
J. D. Thompson, Kaiser-Hill, X6269

We suggest getting them to approve this in writing. They can either sign the shipping memo, return order, credit card return form, or give a letter of approval. Getting approval in writing will give you confirmation that you are covered if DOE/RFFO does an audit on the material to see if approval was given.

If you have any questions please feel free to contact anyone in Traffic Management:

K.F. Lenarcic, Traffic Manager, X2377
V.C. Ament, X2378
D.A. Parker, X4430
C.J. Vetack, X4675
J.L. Watkins, X7613
FAX, X4588